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| 7590 04/19/2004 ANTHONY M. LORUSSO LORUSSO & LOUD 440 COMMERCIAL STREET BOSTON, MA 02109 | | | EXAMINER HUNTER, ALVIN A | |
| | | | ART UNIT 3711 | PAPER NUMBER 66 |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/884,652

Applicant(s)

EMERSON ET AL.

Examiner

Alvin A. Hunter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 18-20 and 24-29 is/are rejected.
- 7) ☒ Claim(s) 16, 17 and 21-23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In particular, claim 3 does not further limit what's recited in claim 1 and does not include all of the limitations of claim 1, as required by 35 U.S.C. 112(4). Instead, it broadens the composition of the second polymer to include materials in addition to those covered by claim 1. Claims 4-17, which depend from claim 3, should also be amended in a manner consistent with the amendment or cancellation of claim 3. For the purpose of examination, Claim 3 will be treated as an independent claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cadorniga et al. (USPN 5415937) in view of Shaw et al. (USPN 4142727) and Molitor (USPN 4726590).

In regards to claim 1, Cadorniga et al. discloses a golf ball having a cover comprises a blend of a first polymer, which Cardorniga et al. refers to as a high modulus

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ionomer, and second polymer, which Cardorniga refers to as a low modulus ionomer, comprising ethylene/methacrylic acid/n- or iso-butyl acrylate copolymer wherein the first polymer has a melt index of 0.5-5.0 g/10 min. and flexural modulus of 60000 to 120000 psi and the second polymer has a melt index of 0.5-10.0 g/10 min (See Abstract, Column 3, lines 28 through 65 and Column 3, lines 56 through 65). Cadorniga et al. does not disclose a golf ball having a dodecahedron dimple pattern on the surface of the golf ball or a core with a diameter of about 1.45 to about 1.60. Shaw et al. discloses a plurality of dimples arranged in a dodecahedron pattern comprising twelve pentagons (10) subdivided by 10 great circles (15) free of dimples (3) that form 60 triangles (See Figure 3). One having ordinary skill in the art would have found it obvious to combine the dimple configuration of Shaw et al. to the cover of Cadorniga et al. in order to obtain a golf ball having optimum aerodynamic properties and flight performance. Molitor discloses a golf ball core having a diameter of 1.545 inches (See Column 5, lines 46 through 48). One having ordinary skill in the art would have found it obvious to combine a core having the above diameter, as taught by Yokota et al., into that of Cardorniga et al., in order to increase the rebounding characteristics of the golf ball.

In regards to claim 2, Cardorniga et al. discloses the first polymer made of an olefin/unsaturated carboxylic acid copolymer (See Column 3, lines 28 through 43).

In regards to claim 3, In regards to claim 1, Cadorniga et al. discloses a golf ball having a cover comprises a blend of a first polymer, which Cardorniga et al. refers to as a high modulus ionomer, and second polymer, which Cardorniga refers to as a low

modulus ionomer, comprising an olefin, wherein the olefin is ethylene, /methacrylic acid/n- or iso-butyl acrylate copolymer wherein the first polymer has a melt index of 0.5-5.0 g/10 min. and flexural modulus of 60000 to 120000 psi and the second polymer has a melt index of 0.5-10.0 g/10 min (See Abstract, Column 3, lines 28 through 65 and Column 3, lines 56 through 65). Cadorniga et al. does not disclose a golf ball having a dodecahedron dimple pattern on the surface of the golf ball or a core with a diameter of about 1.45 to about 1.60. Shaw et al. discloses a plurality of dimples arranged in a dodecahedron pattern comprising twelve pentagons (10) subdivided by 10 great circles (15) free of dimples (3) that form 60 triangles (See Figure 3). One having ordinary skill in the art would have found it obvious to combine the dimple configuration of Shaw et al. to the cover of Cadorniga et al. in order to obtain a golf ball having optimum aerodynamic properties and flight performance. Molitor discloses a golf ball core having a diameter of 1.545 inches (See Column 5, lines 46 through 48). One having ordinary skill in the art would have found it obvious to combine a core having the above diameter, as taught by Yokota et al., into that of Cardorniga et al., in order to increase the rebounding characteristics of the golf ball.

In regards to claim 4, Cardorniga et al. discloses the first polymer made of ethylene and 20-25% by weight of methacrylic acid (See Column 3, lines 28 through 43).

In regards to claim 5, Cardorniga et al. discloses the second polymer made of an ethylene, which is an olefin, n- or iso-butyl acrylate, and 10% by weight of methacrylic acid copolymer (See Column 3, lines 56 through 65).

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In regards to claim 6, Shaw discloses the dimples arranged to coincide with a plurality of pentagons, wherein the pentagons are formed from the dodecahedron pattern (See Figures 1-3).

In regards to claim 7, Shaw discloses the dimples arranged to coincide with a plurality of triangles, wherein the triangles further subdivide the pentagons (See Figure 3).

2. Claims 8-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cardorniga et al (USPN 5415937) in view of Shaw (USPN 4142727) and Molitor (USPN 4726590) further in view of Shaw (USPN 4877252).

In regards to claim 8, Shaw '252 discloses the dimples arranged to coincide with a plurality of rows, wherein the rows further subdivide the triangles (See Figures 3 and 4). One having ordinary skill in the art would have found it obvious to modify the dimples of Cardorniga et al. in view of Shaw and Molitor in the manner above, as taught by Shaw '252, in order to enhance to flight distance of the golf ball.

In regards to claim 9, Shaw '252 discloses the rows comprising of a first row wherein the first row is adjacent to the apex of the triangle, a second row adjacent to the first row, and a third row adjacent to the second row wherein the second row is between the first and third row (See Figures 3 and 4).

In regards to claim 10, Shaw '252 discloses the dimples comprising a first dimples arranged to coincide with the first row, a second dimple arranged to coincide with the second row and third row, and a third dimple arranged to coincide with the third row (See Figure 3 and 4).

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In regards to claim 12, Shaw '727 discloses the depth of the dimple being from 0.005 to 0.025 inches because the ratio of the depth to diameter is 1:6 to 1:15 (See Column 2, lines 37 through 40).

In regards to claim 13, Shaw '727 discloses a first dimple, second and third dimple having a diameter of 0.085 to 0.150 (See Column 2, lines 31 through 36).

In regards to claim 14, Shaw '727 discloses the golf ball having 360 dimples (See Column 2, lines 48 through 51).

In regards to claim 15, Molitor discloses the core having a weight of 36.4 to 40.8 grams (See Table 2).

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 10 in view of Cadorniga (USPN 5470076).

In regards to claim 11, Cardorniga '076 discloses a dimple having dual radii (see Figures 2 and 3). One having ordinary skill in the art at the time the invention was made would have found it obvious to incorporate a dimple with dual radii, as taught by Cadorniga, into the combination of that applied to claim 10 in order to improve the range and accuracy of the golf ball.

4. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cadorniga et al. (USPN 5415937) in view of Shaw et al. (USPN 4142727) and Molitor (USPN 4726590) further in view of Shaw (USPN 4877252).

Regarding claim 18, Cadorniga et al. discloses a golf ball having a cover comprises a blend of a first polymer, which Cardorniga et al. refers to as a high modulus ionomer, and second polymer, made of ethylene and 20-25% by weight of methacrylic

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acid which Cardorniga refers to as a low modulus ionomer, comprising ethylene/methacrylic acid/n- or iso-butyl acrylate copolymer wherein the first polymer has a melt index of 0.5-5.0 g/10 min., a flexural modulus of 60000 to 120000 psi, and a Shore D hardness of 70 or greater, and the second polymer has a melt index of 0.5-10.0 g/10 min (See Abstract, Column 3, lines 28 through 65 and Column 3, lines 56 through 65). Cadorniga et al. does not disclose a golf ball having a dodecahedron dimple pattern on the surface of the golf ball or a core with a diameter of about 1.45 to about 1.60. Shaw et al. '727 discloses a plurality of dimples arranged in a dodecahedron pattern comprising twelve pentagons (10) subdivided by 10 great circles (15) free of dimples (3) that form 60 triangles (See Figure 3). One having ordinary skill in the art would have found it obvious to combine the dimple configuration of Shaw et al. '727 to the cover of Cadorniga et al. in order to obtain a golf ball having optimum aerodynamic properties and flight performance. Molitor discloses golf ball core having a weight of 36.4 to 40.8 g (See Table 2). One having ordinary skill in the art would have found it obvious to combine a core having the above weight, as taught by Molitor, into that of Cardorniga et al., in order to increase the rebounding characteristics of the golf ball. Shaw' 252 discloses the dimples arranged to coincide with a plurality of rows, wherein the rows further subdivide the triangles (See Figures 3 and 4). One having ordinary skill in the art would have found it obvious to modify the dimples of Cardorniga et al. in view of Shaw et al.'727 and Molitor in the manner above, as taught by Shaw '252, in order to enhance to flight distance of the golf ball.

In regards to claim 19, Shaw '252 discloses the rows comprising of a first row wherein the first row is adjacent to the apex of the triangle, a second row adjacent to the first row, and a third row adjacent to the second row wherein the second row is between the first and third row (See Figures 3 and 4).

In regards to claim 20, Shaw '252 discloses the dimples comprising a first dimples arranged to coincide with the first row, a second dimple arranged to coincide with the second row and third row, and a third dimple arranged to coincide with the third row (See Figure 3 and 4).

5. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cadorniga et al. (USPN 5415937) in view of Shaw et al. (USPN 4142727) and Molitor (USPN 4726590).

In regards to claim 24, Cadorniga et al. discloses a golf ball having a cover comprises a blend of a first polymer, which Cardorniga et al. refers to as a high modulus ionomer, and second polymer, made of ethylene and 20-25% by weight of methacrylic acid which Cardorniga refers to as a low modulus ionomer, comprising ethylene/methacrylic acid/n- or iso-butyl acrylate copolymer wherein the first polymer has a melt index of 0.5-5.0 g/10 min., a flexural modulus of 60000 to 120000 psi, and a Shore D hardness of 70 or greater, and the second polymer has a melt index of 0.5-10.0 g/10 min (See Abstract, Column 3, lines 28 through 65 and Column 3, lines 56 through 65). Cadorniga et al. does not disclose a golf ball having a dodecahedron dimple pattern on the surface of the golf ball or a core with a diameter of about 1.45 to about 1.60. Shaw et al. '727 discloses a 360 dimples arranged in a dodecahedron

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(See Column 2, lines 48 through 51). One having ordinary skill in the art would have found it obvious to combine the dimple configuration of Shaw et al. '727 to the cover of Cadorniga et al. in order to obtain a golf ball having optimum aerodynamic properties and flight performance. Molitor discloses golf ball core having a PGA compression of 51 to 119 (See Table 2). One having ordinary skill in the art would have found it obvious to combine a core having the above PGA Compression, as taught by Molitor, into that of Cardorniga et al., in order to increase the rebounding characteristics of the golf ball.

In regards to claim 25, Shaw et al. shows 360 dimples arranged to form ten great circle paths (15) (See Figures 1-3).

6. Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cadorniga et al. (USPN 5415937) in view of Shaw et al. (USPN 4142727) and Molitor (USPN 4726590) further in view of Shaw (USPN 4877252).

In regards to claim 26, Shaw '252 discloses the dimples arranged to coincide with a plurality of rows, wherein the rows further subdivide the triangles and the rows comprising of a first row wherein the first row is adjacent to the apex of the triangle, a second row adjacent to the first row, and a third row adjacent to the second row wherein the second row is between the first and third row (See Figures 3 and 4). One having ordinary skill in the art would have found it obvious to modify the dimples of Cardorniga et al. in view of Shaw et al. '727 and Molitor in the manner above, as taught by Shaw '252, in order to enhance to flight distance of the golf ball.

In regards to claim 27, Shaw '252 discloses the dimples comprising a first dimples arranged to coincide with the first row, a second dimple arranged to coincide

with the second row and third row, and a third dimple arranged to coincide with the third row (See Figure 3 and 4).

In regards to claim 28, Molitor disclose the core having a diameter of 1.545 inches (See Column 5, lines 46 through 48).

In regards to claim 29, Molitor discloses in Table 2 a core weighting 36.4 to 40.8 g.

Allowable Subject Matter

Claims 16, 17, and 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 703-306-5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Garbe, can be reached on 703-308-1207. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AAN

Alvin A. Hunter, Jr.


Stephen P. Garbe
Primary Examiner